

SECTION 00854

COVER MATERIAL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Supply and stockpile Cover Material of 100 per cent crushed slag or crushed natural aggregates.

1.2 RELATED SECTIONS

- A. Section 01455: Materials Quality Requirements

1.3 REFERENCES

- A. AASHTO T 11: Materials Finer Than 75 Φ m (No. 200) Sieve in Mineral Aggregates by Washing.
- B. AASHTO T 19: Unit Weight and Voids in Aggregate.
- C. AASHTO T 27: Sieve Analysis of Fine and Coarse Aggregates.
- D. AASHTO T 96: Resistance to Abrasion of Small Size Coarse Aggregate by Use of the Los Angeles Machine.
- E. AASHTO T 104: Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
- F. AASHTO T 278: Surface Frictional Properties Using the British Pendulum Tester.
- G. AASHTO T 279: Accelerated Polishing of Aggregates Using the British Wheel.
- H. ASTM D 5821: Determining the Percentage of Fractured Particles in Coarse Aggregate.
- I. UDOT 945: Dynamic Stripping Test of Bitumen-Aggregate Mixtures.

1.4 MEASUREMENT PROCEDURES

A. Measure cover material by the cubic yard.
B. Payment at the unit bid price per cubic yard as computed from supplier provided weight tickets.

C. Unless otherwise approved by the Engineer, convert from pounds to cubic yards as follows:

$$(\text{Net pounds on weigh tickets}) / (\text{Pounds per cubic foot} \times 27)$$

EXAMPLE: $(40,000) = 19.12$ cubic yards pay quantity
(77.5×27).

Where (27) is the number of cubic feet in a cubic yard
and 77.5 is the loose weight of the material in pounds per cubic foot.

1. Definitions

- a. Net pounds on weigh ticket: the material including moisture, weighed in the delivery truck.
- b. Pounds per cubic foot: loose material weight of material being loaded and weighed. (Shoveling procedure)

D. UDOT Materials Lab closest to each source determines the weight per cubic foot used in all districts/regions.

1.5 SOURCE QUALITY CONTROL - COVER MATERIAL

A. Department samples at frequency according to Table 1.

Table 1

Stockpiles - Samples and Tests	
Lot Quantity (cubic yards)	Number of Samples
Lot \geq 2000	5
1200 < Lot < 2000	4
Lot \leq 1200	3

B. The Department samples for acceptance either at the project stockpile or at the source of supply. If material previously accepted at the source is suspect when delivered to the project or stockpile, the Department may retest and accept or reject the material as per Section 01455.

1.6 PAYMENT PROCEDURES

- A. Pay accepted quantities at the contract unit price.
- B. Pay at the unit bid price per cubic yard as computed from supplier provided weight tickets.
- C. Minimum pay factor Table 2 determines adjusted unit price.

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1. Pay on individual completed stockpiles, or¶
2. .

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Table 2

Cover Material Acceptance Schedule For Gradation (Percent passing)				
Sieve Gradation Size	Pay Factor*	Acceptance Band Type A	Acceptance Band Type B	Acceptance Band Type C
	Cover Material	Average of Tests	Average of Tests	Average of Tests
1/2 inch	1.00	100.0		100.0
	0.95	99.0		99.0
	0.90	98.0		98.0
	0.85	97.0		97.0
	Reject	< 96.9		<96.9
3/8 inch	1.00	85.0 - 100		70.0 - 90.0
	0.95	84.0 - 84.9		69.5 - 91.5
	0.90	83.0 - 83.9		69.2 - 92.0
	0.85	82.0 - 82.9		68.0 - 92.0
	Reject	< 81.9		<67.9 and >92.1
No. 4	1.00	0 - 20	100.0	0 - 5.0
	0.95	20.1 - 21	99.0	5.1 - 5.5
	0.90	21.1 - 22	98.0	5.6 - 6.0
	0.85	22.1 - 23	97.0	6.1 - 7.0
	Reject	> 23.1	< 96.9	> 7.1
No. 8	1.00	0 - 5	85.0 - 100	0.0 - 3.0
	0.95	5.1 - 5.5	84.0 - 84.9	3.1 - 3.5
	0.90	5.6 - 6.0	83.0 - 83.9	3.6 - 4.0
	0.85	6.1 - 7.0	82.0 - 82.9	4.1 - 5.0
	Reject	> 7.1	< 81.9	> 5.1
	1.00		10.0 - 25.0	
	0.95		9.5 - 25.5	

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No. 16	0.90 0.85 Reject		9.0 - 26.0 8.5 - 26.5 < 8.4 and > 26.6	
No. 50	1.00 0.95 0.90 0.85 Reject		0.0 - 5.0 5.1 - 5.5 5.6 - 6.0 6.1 - 7.0 > 7.1	
No. 200	1.00 0.75 0.50 Reject	0.0 - 1.0 1.1 - 1.5 1.6 - 2.0 >2.1	0.0 - 2.0 2.1 - 2.5 2.6 - 3.0 > 3.1	0.0 - 1.0 1.1 - 1.5 1.6 - 2.0 >2.1

* use the lowest individual pay factor for combined gradation

PART 2 PRODUCTS

2.1 COVER MATERIAL

- A. Use crusher processed virgin aggregate consisting of natural stone, gravel, or slag meeting the requirements of Table 3.

Table 3

Chip Seal Cover Material Properties		
Unit Weight	AASHTO T 19	100 lb/ft ³ , max
One Fractured Face	ASTM D 5821	95 per cent min.
Two Fractured Faces	ASTM D 5821	90 per cent min.
LA wear, see Note 1	AASHTO T 96	30 per cent max.
Soundness	AASHTO T 104	10 per cent max.
Stripping, see Note 1	Materials MOI 8-945	10 per cent max.
Polishing, see Note 1	AASHTO T 278, T 279	31 min.
Note 1: The Department has the right to waive this requirement if the aggregates have proven acceptable through successful past performance as determined by the Engineer.		

- B. Grade with the following limits shown in Table 4 to meet the specified test standard in AASHTO T 11 and T 27.

Table 4

Cover Material
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August 31, 2006

Sieve Size	Percent Passing		
	Type A	Type B	Type C
1/2 inch	100		100
3/8 inch	85-100		70-90
No. 4	0-20	100	0-5
No. 8	0-5	85-100	0-3
No. 16		10-25	
No. 50		0-5	
No. 200	0-1	0-2	0-1

Part 3. EXECUTION

3.1 DELIVERY

A. Deliver between the hours of 7:00 AM and 3:00 PM Monday through Thursday.

3.2 STOCKPILING

A. Stockpile at locations designated by the Department.

B. Stockpile Methods:

1. **Method 1** Stockpile by butting loads
 - a. Use end dumps, end dumps and pups, or belly dumps.
 - b. Butt end dump loads one against the other in such a manner to occupy as small a total stockpile area as possible.
 - c. If supplier uses belly dumps or pups push up the stockpile to a uniform 10-foot height. Maintain stockpile height using supplier-provided equipment.
 - d. If the Engineer is not satisfied with stockpiling, supplier reshapes the stockpile to an acceptable configuration.
 - e. If Department personnel reshape the stockpile, Department deducts reshaping cost from amounts due supplier.
2. **Method 2** Stockpile by supplier-furnished loader.
 - a. Use end dumps, end dumps and pups, or belly dumps.
 - b. Buck up and place load using supplier-furnished loader and operator.
 - c. Build and buck up stockpiles to a uniform 10-foot height.

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- d. If the Department is not satisfied with the stockpiling, supplier reshapes stockpile to an acceptable configuration.
 - e. If Department personnel reshape the stockpile, Department deducts reshaping cost from amounts due supplier.
3. **Method 3** Department shapes pile.
- a. Use end dumps, end dumps and pups, or belly dumps.
 - b. Department shapes stockpile.

END OF SECTION

Comment: Changes
May 2, 2003 . Corrected lot size Table 4
Nov 7, 2003 . Revised 3.2.B Stockpiling
. . Corrected typography and format
Dec. 8, 2003 . Removed 1.3.H
Elongated Particle test, and revised 2.1.A
Table 2 to remove mention of elongates
March 8, 2004 – . Revised 3.1, moved
2.2 to 1.5, renumbered tables
January 31, 2005 – . Typographical
Corrections
Jan 2, 2008 . Revised payment to cubic
yards only

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